SOMALILAND PROTECTORATE

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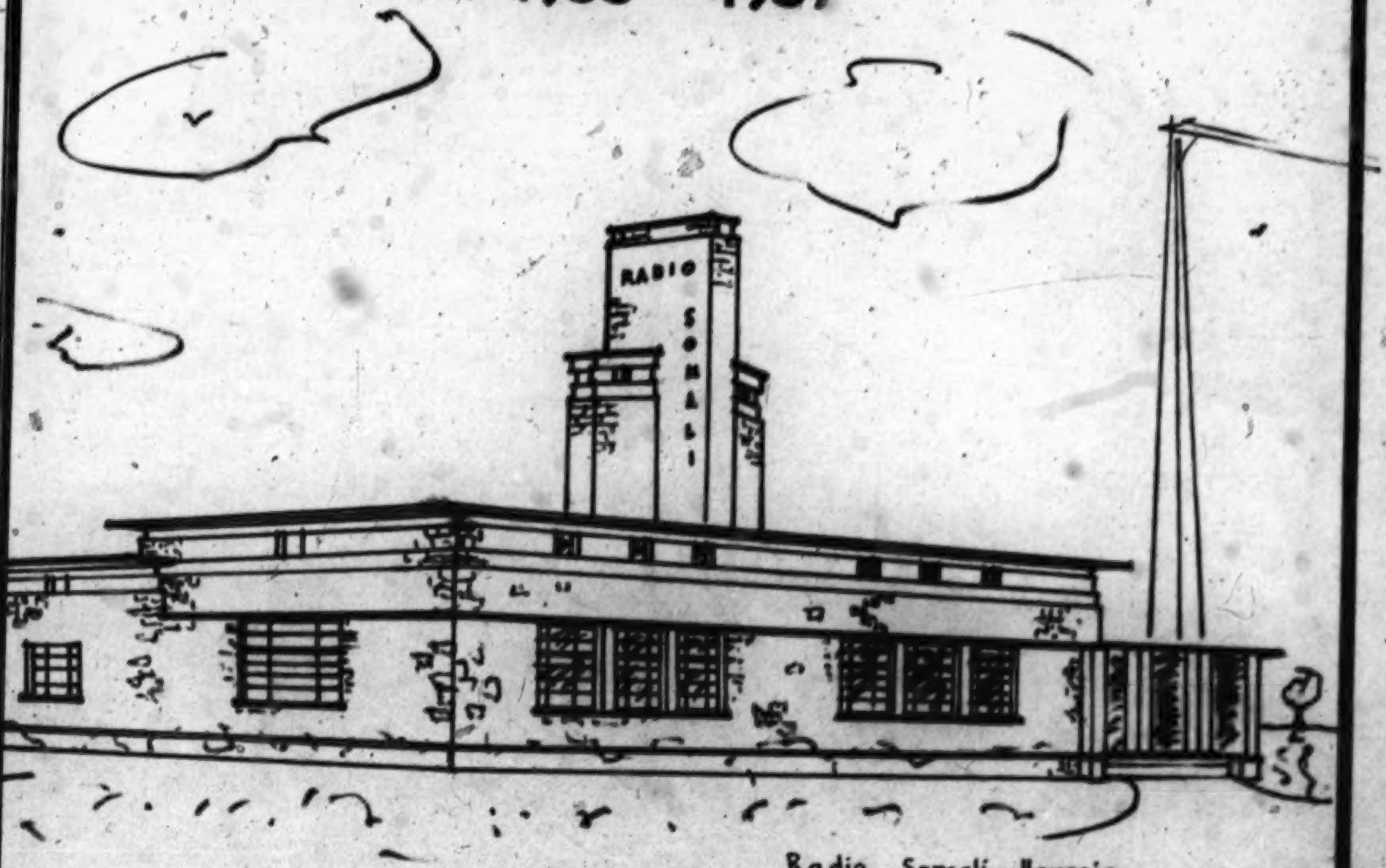
REVIEW OF DEVELOPMENT

1955 — 1957



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REVIEW OF DEVELOPMENT SCHEMES

COLONIAL DEVELOPMENT AND WELFARE ACTS
1940, 1945 AND 1955.

INTRODUCTION.

The last review of the progress made on development schemes financed from Colonial Development and Welfare funds was undertaken in respect of the year 1954. The present review covers the period from the 1st January 1955 in respect of schemes in progress at that date, of new schemes which have been commenced since the 1st January 1955, and it also includes brief details of schemes which were completed before that date. Figures relating to the total expenditure incurred from the inception of each scheme upto 31st March 1957 are also provided. Brief details have been included also of schemes which, at the time of writing, are awaiting the Secretary of State's approval.

2. During the period now under review, the 1940 and 1945 Colonial Development and Welfare Acts expired and were succeeded by the 1955 C.D. & W. Act. The allocations made under the 1940 and 1945 Acts covered expenditure incurred from the inception of the development schemes upto 31st March 1956, while after that date the cost of the schemes became a charge against allocations provided for the new period up to the 31st March, 1960 under the 1955 C.D. & W. Act. The position may be summarised as follows:-

The total allocation made to the Protectorate under the 1940 and 1945 C.D. & W. Acts amounted to	£917,232
and expenditure during the period covered by the Acts amounted to	740,978
leaving an unexpended balance of	£176,254.

This unspent balance has been added to the allocation of £1,000,000 of new money which has so far been made to the Protectorate under the 1955 Act.

3. Following the allocation of £1,000,000 under the 1955 Act, however, approval was given by the Secretary of State in 1956 for the planning of an expanded programme of development to be undertaken which has as its target the expenditure of £2,470,000 in the period up to the 31st March 1960. The initial allocation of the £1,000,000 under the 1955 Act plus the unspent balance of £176,254 remaining from the previous period is sufficient to enable the first stage of the expanded programme to be undertaken and will cover all development expenditure envisaged upto the 31st March 1958. Progress will be reviewed towards the end of the current financial year in consultation with the Secretary of State and consideration will then be given as to the means by which the additional finance required for the remainder of the development plan can be made available. The allocations which have been made between the various services on the basis of present planning, are as follows:-

	£.
Education	628,154
Rural Water Supplies	200,000
Hargeisa Water Supplies	200,000
Other Township Water Supplies	30,000
Abattoir and Cold Store	68,000
Medical, T.B. Control	94,887
Agriculture and Natural Resources	452,127
Scholarships	162,840
Berbera Port	330,000
Development Staff and Services, P.W.D.	128,000
Carried Forward	2,294,008

		£.
Brought Forward		2,294,008
Land Tenure		29,565
Sundry Schemes		33,450
Contribution to Central Schemes:		
Geological Survey	£30,183	
Broadcasting Station	2,250	32,433
Somali Dictionary		1,720
Rest House, Gan Libah		1,500
Social Welfare		800
		2,393,476

There is an unallocated balance of nearly £81,000 for the financing of additional schemes or for the expansion of any existing projects. The programme will constitute a very considerable strain on the physical resources of the territory to undertake, and some schemes will inevitably progress faster than others. The present basis of planning will be kept continuously under review to ensure that the best use is made of the financial resources available.

4. A few schemes e.g. Geological Survey, are financed from grants which have not been provided from the allocation of funds made to the Protectorate, but from an allocation of Colonial Development and Welfare Funds which is controlled centrally by the Secretary of State. Details of these "central allocation" schemes have been provided separately in this Review.

5. Considerable ground is covered in this survey and in order to facilitate reference, the Review has been divided into the following Parts:-

PART I - SCHEMES FINANCED FROM THE ALLOCATION OF C.D. & W. FUNDS MADE TO THE PROTECTORATE.

A. Schemes completed before 1st January, 1955.

B. Schemes in Progress on the 1st January, 1955.

C. Schemes approved after 1st January, 1955.

D. New Schemes submitted and awaiting approval of the Secretary of State.

PART II - SCHEMES FINANCED FROM THE C.D. & W. CENTRAL ALLOCATION.

A. Schemes completed before 1st January, 1955.

B. Schemes in Progress on the 1st January, 1955.

C. Schemes approved after 1st January, 1955.

PART III - SUMMARY OF EXPENDITURE UNDER PART I

PART IV - SUMMARY OF EXPENDITURE UNDER PART II.

6. The opportunity is taken to acknowledge the generous assistance which is being **afforded** to certain development projects by the World Health Organisation and the United Nations International Children's Emergency Fund and by the International Co-operation Administration of the United States of America. Further details of the assistance provided are contained under the appropriate scheme headings, notably Tuberculosis Control, Irrigation and Soil Conservation and Forestry.

7. The considerable expansion in various services e.g. Education which is envisaged as part of the development plan will inevitably result in a substantial permanent residue of annual recurrent expenditure when the present programme is complete. In order to accustom the Protectorate budget to these increased recurrent charges, and to encourage financial initiative in the recently inaugurated Legislative Council, it has been decided that local Protectorate revenues will make a contribution towards the recurrent costs of the expanded development programme. This arrangement, which may be regarded as unusual in a territory which is dependent on substantial grants in aid

from the United Kingdom in order to balance its annual budget, is designed to give the Somali people, through their legislature, a stake in the financing of the development of their country. It will also serve to stress the fact that financial self-reliance and the application of effort and sacrifice are essential factors in any progress towards internal self-government. The amount of recurrent expenditure on development schemes which it is planned that the local budget should carry in 1957/58 totals £100,025, and it is hoped that local revenue will be able to contribute not less than £350,000 in the period up to the 31st March 1960.

Hargeisa
June 1957.

PART I.

SCHEMES FINANCED FROM THE ALLOCATION OF C.D. & W. FUNDS MADE TO THE PROTECTORATE.

A. SCHEMES COMPLETED BEFORE 1ST JANUARY, 1955 (1940/45 C.D. & W. ACTS).

1. Economic Survey:

D. 484 Grant £55,505.

8. The Economic Survey undertook the investigation and collation of a large quantity of basic information regarding the Protectorate which had not previously been systematically recorded including such matters as tribal migration, grazing areas, and general ecological information affecting the nomadic and pastoral tribes of the territory. The scheme also included a rough survey of the areas where agriculture is considered practicable and the establishment of meteorological records together with a general reconnaissance of soil conditions and minerals. The final report was printed in 1953; after deducting revenue which accrued from the sale of the report, the scheme has now been finally closed with an expenditure of £55,349.

2. General Development:

D. 486 Grant £163,215.

9. This scheme was designed to cover the cost of an initial programme of rehabilitation and immediate development of certain basic services in the Protectorate during the period of Military Administration and pending return to Civil Government. It provided for the preparation of a comprehensive plan for economic and social development and for the construction of buildings and purchase of equipment for health, education and other services, some improvements to communications and the development of water supplies. A large number of minor projects were completed under the scheme prior to the inauguration of

the formal Development Plan which was finally approved in 1952. The scheme was closed on 31st March 1952 with a final expenditure of £163,102.

3. Borama Primary School:
D. 975 Grant £21,174.

10. A Primary Boarding School was built at Amoud near Borama and opened in September 1950 with accommodation for a total of 120 boys and an annual intake of approximately 30. The school was subsequently converted to an Intermediate Boarding School and elementary education was discontinued there. The original grant of £22,900 was reduced to the final net expenditure of £21,174.

4. Public Works Department Stores, Workshops etc:
D. 1034 Grant £9,577.

11. The object of the scheme was to provide improved storage and workshop facilities, without which the P.W.D. would have been seriously handicapped in the maintenance of basic services in the territory. The buildings were completed by 31st March 1953, and the final expenditure was £9,368.

5. Construction of Ballehs:
D. 1338 Grant £18,500.

12. The object of the scheme was to spread stock grazing in the Protectorate over a wider area by the provision of storage for temporary supplies of surface water in otherwise waterless areas and thereby to relieve the concentration of stock and consequent overgrazing around the existing permanent wells. The network of ballehs (shallow ponds or reservoirs) was spaced over an area of about 6,500 square miles to a distance of 25 miles northwards from the southern frontier of the Protectorate. A total of 19 ballehs having an aggregate storage capacity of over fifty-four million gallons were completed and the scheme was closed in 1954. The total C.D. & W. expenditure was £18,198.

13. The earth-moving machinery for this scheme was provided in 1952 from the Overseas Development Pool of the American Economic Co-operation Administration at a cost of £12,500. The machinery included one D4 Caterpiller Bulldozer, three D4 Caterpiller tractors and two D40 Caterpiller Scrapers, and was taken over by the Protectorate Government on the completion of the scheme. It is now employed on repairs to the ballehs, road construction, and similar works requiring the use of earthmoving equipment.

6. Grazing Control:

D. 1386 Grant £14,000.

14. The original grant approved was £85,000 and the purpose of the scheme was to establish a measure of control over pasture usage by means of rotational closures of selected grazing areas in order to arrest the countrywide deterioration of the pastures and vegetation. It was intended to employ a qualified Pasture Officer and five Grazing Control Officers and a number of Somali grazing guards. In the event, however, the scheme could not be implemented because the co-operation of the local graziers could not be obtained, and because the adoption of good pasture management was found to depend not so much on the logic of its necessity as on other factors, such as tribal feuds, tensions and personalities. It was therefore decided that in the first place an attempt must be made to induce the Tribal Elders to assume responsibility for grazing closures, or at least to inculcate a more rational outlook. The scheme as originally conceived was not proceeded with and it was finally closed in 1954 after expenditure of £13,500 had been incurred.

15. There has more recently been a growing realisation amongst certain tribes that the pastures are deteriorating

rapidly and that something must be done before it is too late. It was possible to inaugurate a Pilot Scheme for Range Management in 1956 and there have been other encouraging signs of co-operation from graziers and tribal leaders. Details of the Range Management scheme will be found under serial 44; reference to deferred grazing has also been made under serial 23 Forestry.

7. Junior Secondary School:

D. 1417 Grant £21,394.

16. The original purpose of this school was to provide two years post-Intermediate education for 60 students who would enter at the rate of 30 each year since there were at the time no facilities for secondary education in the Protectorate. The students were all earmarked for various branches of Government Service and it was intended that a wide range of vocational subjects would be taught. The school was opened in October 1952, and the buildings were completed in December 1952 at a cost of £21,394.

17. In 1953 the name was changed to the Vocational Training Centre on the recommendation of the Binns Commission on African Education since this more appropriately described its function. Owing to difficulties in obtaining instructors in all the subjects which it had been proposed to offer, the Vocational Training Centre was eventually organised to provide two classes for teacher training and two classes of students under training for the clerical service. In December 1954 the buildings were taken over by the Senior Secondary School which had moved from Sheikh, and the Vocational Training Centre transferred to Shikh into the buildings vacated by the Senior Secondary School.

8. Erigavo-Mait Road:

D. 1450 and D.1450 A. B and C Grant £53,891.

18. Prior to the construction of the Erigavo-Mait Road, there was no means of direct access by motor vehicle between the ports of the Eastern seaboard of the Protectorate and the towns and countryside of the interior which lie on a high plateau separated from the coastal plain by a steep escarpment approximately 5000 feet high. Imports and exports had to be conveyed by camel train or by road to Berbera 340 miles away. The road down the escarpment from Erigavo to Mait was completed at a cost of £53,888 and was opened in October 1952. It enables imports to be carried direct to the interior and facilitates the exports of gum and other produce of the area.

9. Housing for Expatriate Staff - Agricultural Schemes:

D. 1473. Grant £19,000.

19. To meet the need to provide accommodation for expatriate staff who were being engaged for the agricultural development schemes then in progress, additional houses were built in all the main district headquarters except Berbera. The Programme was completed in 1954 and the final cost was £18,933.

10. Additional Workshop Accommodation - Sheikh Intermediate School.

D. 1513 Grant £1,500.

20. An additional building was provided in 1950 to meet the needs of the technical part of the syllabus at the Sheikh Intermediate School; provision was also made for an initial stock of elementary engineering equipment and carpentry tools. The final expenditure on the scheme amounted to £1,172.

11. Irrigation Survey:

D. 1518 Grant £1,514.

21. The object of this scheme was to enable the services of an irrigation expert to be obtained to examine the possibilities of utilising the seasonal flood waters which are available in the sand rivers for flash irrigation, in the same manner as has been successfully accomplished at Abyan in the Aden Protectorate and elsewhere. The survey was completed in 1952 by Brigadier Hawes at a cost of £1,501.

22. As a result of the report submitted by Brigadier Hawes, and on the recommendation of the Secretary of State's Adviser on Agriculture, the Hydrological Survey scheme (serial 30) was established in 1953 and this has led in turn to the establishment of the Irrigation and Soil Conservation Scheme (serial 34).

12. Care of Destitute Children:

D. 1528 Grant £1,583.

23. The increasing number of destitute children who were tending to drift into the towns and who were in obvious need of care and attention, led to an offer from the Save the Children Fund Organisation to participate with the Government in a scheme which would be designed to provide shelter and food for a limited number of boys, and for training in useful trades for the older children.

24. A Home in Hargeisa was started in July 1951, and the Government share of the initial cost was provided in the form of a C.D. & W. grant of £1,583. Since September 1952 the recurrent costs of the Home have been shared jointly by the Government and by the Save the Children Fund. The former now provides 60% of the local cost from Protectorate revenue and the Fund provides the services of an Administrator and the remaining 40% of the local cost of maintaining the Home.

13. Mental Hospital:

D. 1611 Grant £9,800.

25. Considerable extension and alterations were carried out to the mental hospital at Berbera, which provides the only accommodation for mental patients in the territory. The work was completed during 1954 with a final expenditure of £9,511.

14. Printing of Report on the Geology of Somaliland Protectorate.

D. 1637 Grant £240.

26. The scheme provided for the printing of a report, based on the work of the former Somaliland Oil Exploration Company, on the geology of the Protectorate. The report was published in 1953, since when the scheme has been credited with revenue from sales. From the beginning of 1957 such receipts have accrued to local revenue. The final net expenditure on the scheme was £145.

15. Teaching and Subordinate Staff for Junior Secondary School.

D.1686 Grant £1,248.

27. This scheme was approved to provide for the recruitment of a teacher from the Sudan and for the employment of subordinate staff required for the Junior Secondary School at Amoud (serial 7) which was opened in October 1952. The scheme was, however, closed on the 31st March 1954 with a total expenditure of £471. Since that date, the staff concerned have been carried on the Protectorate establishment of the Education Department.

16. Somali Understudies:

D. 1833 Grant £445.

28. During 1952/53 a number of young Somalis were provisionally selected for further training abroad under the £1m. Scholarships Scheme administered centrally by the Colonial Office (see serial 41). For 5 months before proceeding abroad, they were attached to a Government department of their choice and the allowances paid to them during this period, totalling £445, were provided for from the grant approved specifically for this purpose.

B. SCHEMES IN PROGRESS ON 1ST JANUARY, 1955.

17. Date Cultivation:

1940/45 Acts	D. 882 and A	Grant	£46,710
1955 Act	D.2806 - Grant to 1960		39,000
		Total:	85,710.

29. The history of this scheme goes back to 1946 when a grant of £600 was made under scheme D.486 (serial 2) to cover the expenses of an investigation carried out by a Date expert, Mr. V.H.W. Dowson in order to obtain an authoritative opinion on the possibility of establishing a date growing industry in the Protectorate, and to obtain advice on the means whereby such an industry could be established. Dates constitute an important item of Somali diet and more than 11,000 tons were imported in 1956 from the Persian Gulf. Mr. Dowson subsequently reported that local conditions appeared favourable and it was decided, therefore, to introduce a scheme of preliminary trials to extend initially over a period of 9 years at five selected planting stations with some 30 to 50 different varieites of imported palms. It was regarded as important that the most suitable palms be chosen for planting from among the many varieites available, taking into account the varying soil and climatic conditions of the different districts surveyed and considered suitable.

30. The Date Introduction scheme was approved in February 1948 and Mr. Dowson made several expeditions to date producing countries to purchase palm shoots. By the end of 1952 over 4,000 shoots had been imported. The scheme was thereafter administered by an Assistant Agricultural Officer until a qualified officer was seconded to the scheme in 1955. Mr. Dowson paid another visit to the Protectorate in 1954 and submitted a report on the results achieved on the work which required to be

undertaken over the next few years. It was found that the mortality rate among the imported shoots had been very high, - on a count taken in October 1953 the rate was 66% and it rose to as high as 73% in 1954. There had however been a decrease in the mortality rate of certain varieties, those imported from Tunisia reflecting a rate of only 26% in 1954. During the latter year 900 of the imported palms had a total of 2,353 daughter off-shoots so that during 1955 - nearly 8 years after the inception of the scheme - these daughter shoots were reaching the severence stage in increasing numbers. Early in that year 16 daughter shoots from palms of the first importation (from Hadhramaut and Hasa) were severed and planted in the Hargeisa tree nursery. At the end of the year only 7 of these were surviving and only 1 was making satisfactory progress. Trials were also made with direct planting without nursery treatment. At Bulhar, where Hadhramaut importations had given some promise, 13 daughter shoots were severed during 1955 but none of these were surviving at the end of 1956. Results in Mandera were more promising however as 6 shoots out of 20 severed from imported palms at Behindula and Manjasseh were still alive at the end of 1956. At Bulhar the water is undoubtedly brackish whilst at Mandera it is of excellent quality. It is apparent that more detailed study must be given to the actual process of severing the daughter shoot, the season in which it is done and the quality of the shoot at the time of removal.

31. A further importation of date-shoots from the Hadhramaut was made during the early part of 1956. The subsequent fate of the 434 shoots imported again reflects a relatively high mortality rate; the position at the end

of 1956 being as follows:-

	A	B	C
Mandera Nursery	34(54%)	28(44%)	1 (2%)
Mandera **Direct**	26(51%)	14(27%)	11(22%)
Behindula	7(39%)	9(50%)	2(11%)
Bulhar	6(35%)	5(28%)	7(39%)
Manjasseh Nursery	55(19%)	69(23%)	169(58%).

A = Definitely alive and making active growth.
B = Shwong green colour but not growing.
C = Definitely dead - rotting at base.

It will be seen from the above figure that the Mandera Nursery has been by far the most successful planting. In the Mandera direct planting, the heaviest mortality occurred amongst the shoots imported from Diis in the Hadhramaut where soil conditions were unfavourable and this may therefore explain why the nursery treatment appears to have been more successful.

32. As regards palms of previous importations, a total of 197 flowered during 1956 and 177 bore fruit. The highest average yield per palm (28 lbs.) was from the Hadhramaut importation at Manjasseh. The highest individual yield of 60 lbs. 10 ozs. occurred from one of these palms. Yields from other importations and stations were considerably less but it should be remembered that it may take up to 20 years before the palms come into full production.

33. Subsidiary crops have been planted in some of the gardens as is done in date cultivations in the Arab, Persian and Indian Date growing world. Those at Manjasseh and Behindula grown under irrigation include pigeon pea, beans, various types of lucerne, berseem clover and maize. Of the fruit trees which have been planted, the most promising have proved to be the Guava

and Chinese Dwarf Banana. Shelter belts of trees have also been planted at Manjasseh to protect the trees from the monsoon winds between May and October.

Estimated Total Cost 1948 - 1960.

1940/45 Acts - Net Expenditure 1948-1956	£41,556	£41,556
1955 Act - Estimated cost 1956-1960		39,000
Estimated Total Cost 1948-1960		80,556
Expenditure 1956/57	6,600	
Total Cost 1948-1957	48,156	48,156
Estimated Expenditure 1957-1960		32,400

18. Transport Pool - Agricultural Schemes:

1940/45 Acts	D. 1396	Grant	£20,000
1955 Act.	D. 2809 - Grant to 1960		7,662
		Total:	27,662.

34. In order that the transport needs of the inter-related agricultural development schemes could be provided on the most economic basis, a scheme was approved in May 1950 for the provision of a transport pool. With the inception however of more extensive schemes requiring their own transport allocation, it was possible to seek a reduction of the establishment, when the scheme was extended under the 1955 Act. The present strength of 6 land rovers covers the requirements of the smaller schemes and provides transport for headquarters supervisory staff engaged on duties under C.D. & W. Schemes.

Estimated Total Cost 1950 - 1960.

1940/45 Acts - Net Expenditure 1950-1956	£18,440	£18,440
1955 Act - Estimated Cost 1956-1960		7,662
Estimated Total Cost 1950-1960		26,102
Expenditure 1956/57	2,829	
Total Cost 1950-1957	21,269	21,269
Estimated Expenditure 1957-1960		4,833

19. Fisheries Development:

1940/45 Acts	D. 1434 A and B	Grant	£19,037
1955 Act	D. 2807	Grant 1.4.56 to 30.9.57	2,100
		Total:	£21,137.

35. The Gulf of Aden is rich in fish and although comparatively little interest had been shown by Somalis in fishing, it was considered that with suitable advice and encouragement the development of a profitable industry might be possible. It was recognised that the establishment of such an industry on a commercial scale would not be possible without positive encouragement, demonstration and advice from Government, and for this purpose a scheme was approved in August 1950 to provide for the purchase of a fishing vessel and the engagement of a fisheries officer.

36. The progress of this scheme has, however, been disappointing principally on account of the difficulty in obtaining the continuous services of a suitably experienced and qualified officer, but also because the vessels available to the scheme have proved unsuitable for work in the frequently turbulent seas encountered on the eastern coasts of the Protectorate.

37. When the scheme was reviewed at the time that the Development Plan for the new period under the 1955 Act was under preparation, it was decided to give the scheme a further trial and an extension was subsequently approved. The officer who replaced in 1955 the first officer appointed to run the scheme, resigned early in 1956, and the scheme has been placed on a care and maintenance basis only since that date. It has now been decided to close the scheme in its present form and the grant has been approved for expenditure until the end of September 1957 whilst the

scheme is in process of being wound up.

Estimated Total Cost 1950 - 30.9.1957.

1940/45 Acts - Net expenditure 1950-1956	£17,377	£17,377
1955 Act - Estimated expenditure 1956 to 30.9.1957		2,100
Estimated Total Cost to 30th September 1957		19,477
Expenditure 1956/57	1,610	
Total Cost 1950-1957	18,987	18,987
Estimated Expenditure 1957 (1.4. to 30.9)		490

20. Improvement of Hides and Skins.

1940/45 Acts	D. 1446 and A	Grant	£15,980
1955 Act	D. 1446 B	grant to 1960	17,460
		Total:	33,440.

38. The original purpose of this scheme, which was approved in August 1950 was to provide instruction on the best methods of flaying and subsequent treatment of hides and skins. To this end the Hides and Skins Officer trained a number of Somali Skin Graders who now tour the Protectorate regularly, demonstrating and teaching improved methods of flaying, drying and storage.

39. There has been a progressive deterioration in recent years in the world market for high quality sheep and goat skins such as Somaliland offers, as a result of the increasing competition from synthetic substitutes. This trend makes it all the more important, however, that standards should be continually improved so that only skins of the highest quality are exported. It is only in this manner that Somaliland skins will be able to maintain their place in the increasingly competitive market.

40. A Demonstration Room has been completed at Burao where correctly treated skins are exhibited together with a number of finished articles manufactured from locally produced skins. A power-operated baling press has now been purchased and will shortly be erected in Berbera. Not only will the cubic measurement for freight on skins exported to be considerably reduced by the utilisation of this press, but the correct baling of the skins will tend to reduce deterioration.

41. Progress has continued with the training of the staff in the technique of grading skins for marketing since a fully trained staff will be required for the administration of a comprehensive Hides and Skins Ordinance when it is enacted.

Estimated Total Cost 1950 - 1960.

1940/45 Acts - Net expenditure 1950 - 1956	£13,043	£ 13,043
1955 Act - Estimated cost 1956-1960		17,460
Estimated Total Cost 1950-1960.		30,503
Expenditure 1956/57	4,827	
Total - 1950 - 1957	17,870	17,870
Estimated Expenditure 1957-1960.		12,633.

21. Yemeni Farms:

1940/45 Act	D.1455	Grant	£6,000.

1955 Act . Scheme merged with D.2984
Irrigation and Soil Conservation (serial 34).

42. The original intention of this scheme was to lay out and maintain a series of bunded farms as demonstration units. In 1954, after the scheme had been running for nearly 2 years, it was considered that the demonstration plots had served their purpose and they were therefore handed over to local farmers. The scheme was revised to

permit an increase in the number of bullock teams with the object of providing a bund-building hire service so as to achieve a widespread scatter of well bunded farms. However, as farmers are generally unwilling to permit the erection of bunds on their lands - which naturally causes considerable disturbance of the soil - until it is clear of the last vestige of stock feed, the season during which such teams can operate for the building of bunds is limited to the period from the time that the last of the stover of one crop is cleared until the next crop is sown. The maintenance of bullock teams for such a limited period of employment is clearly uneconomic, but it was considered that the educational value of these bunded farms justified some measure of subsidy to those farmers who had accepted the advice of the department to have their farms bunded.

Net expenditure under the 1940/45 Acts was £5,065.

43. The introduction of the Irrigation and Soil Conservation scheme (serial 34) in 1954 led to the amalgamation of this bullock hiring scheme with the Tractor Hire Service scheme (serial 28) when the Irrigation and Soil Conservation scheme was extended on a broader basis under the 1955 Act. The need for such amalgamation had become apparent as one of the most valuable services which a small agricultural tractor can render in this territory is the assistance which it provides when working in conjunction with oxen in the erection of large water retaining bunds. Provided a farmer is prepared to erect his own bunds according to specifications laid down by the Agricultural Division, no charge is raised for the work done by the tractor in loosening the soil.

22. Experimental Farms.

1940/45 Acts	D. 1458	Grant	£6,790.
1955 Act	D.2818 grant to 1960		4,750
		Total:	11,540.

44. This scheme was approved in August 1950 for the purpose of establishing experimental farms to provide facilities for agricultural research and controlled experiments.

45. Six widely scattered plots were established but their effective supervision proved difficult and by 1953 all but 2 were closed down. In 1954 one of these was replaced by a central experimental farm of 20 acres at Aborein near Hargeisa where it is possible to carry out a series of experiments and investigations amenable to statistical control. Work is devoted to trials with artificial, farm and local guano manures, and to the control of cockchafer, stemborer and smuts in sorghum. Trial crops suffered heavily from locust attacks during 1955. In 1956, however, despite freedom from locusts and a satisfactory rainfall, the yields of sorghum were generally poor except in the bunded section of the farm. This may be ascribed to the effect of a particularly severe monsoon wind on an early planted crop together with severe stalkborer infestation. Further details of the trials carried out and statistical analyses are available in the Annual Report for 1956 of the Department of Natural Resources.

46. Permanent fencing has been erected around the farm compound as a stone-built store block has been completed.

Estimated Total Cost 1950-1960.

1940/45 Acts - Net expenditure	1950-1956	£5,824	£5,824
1955 Act - Estimated cost	1956-1960		4,750
Estimated Total Cost	**1950-1960**		10,574
Expenditure	1956-1957	1,511	
Total Cost	**1950-1957**	7,335	7,335
Estimated Expenditure	**1957-1960**		3,239

23. Forestry:

1940/45 Acts	D. 1459	Grant	£41,417
1955 Act	D. 2860 grant to 1960		108,600
		Total:	150,017

47. This scheme was approved in August 1950 to provide for the conservation and development of forests as an essential part of a programme to counter soil erosion and the destruction of vegetation. It therefore also covers the whole field of grazing control, soil conservation and water development. Schemes for the two latter aspects of the problem have been approved but the question of grazing control was deferred for the reasons which have already been explained in serial 6 above. It was decided therefore to attempt the achievement of similar results by the more indirect methods of afforestation and the protection of watersheds. Since these projects are the responsibility of the Forestry organisation, a considerably larger scheme was drawn up for the new development period under the 1955 Act.

48. A number of forest reserves have been constituted and in 1956 the area was increased from some 243 square miles to 797 square miles by the addition of five new reserves, the largest of which - Al Medu - is 550 square miles in extent and contains the finest areas of Juniperus procera (cedar) forest in the country.

49. The extraction of timber from the juniper forests has been carried out on an experimental basis using a small portable saw bench from which window frames and other building and furniture timber have been produced. It is now considered that the setting up of a mill in the Al Medu forest in the Erigavo District would be justified and that the amount of dead and over-matured timber is sufficient to

meet demands until techniques have been established for the further production of mill timber. An extension of the scheme has therefore been proposed to provide for the purchase of a suitable saw mill and for the engagement of the services of an expatriate mechanic experienced in saw mill work who would supervise the mill and assist with the training of staff. The proposed extension of the scheme would also provide additional funds for some silvicultural work including experimental planting in mountain catchment areas.

50. One of the original objects of the Forestry Scheme was to effect some improvement in the production of frankincense, myrrh and gum arabic. It has been found, however, that there is little opportunity of greatly increasing the output because of the specialised nature of the products and their markets. At present all the gum is marketed in Aden and in order to provide improved storage there and better marketting conditions for Somaliland produces, a site for the construction of a gum warehouse, which would be managed by the Somaliland Government through an agent, has already been purchased. Further details of this project will be found under serial 35.

51. As noted above, active measures are being taken to meet the serious problem of soil erosion, which is most severe along the main watersheds of the country, by the establishment of forest reserves. In regard to the ordinary pasture land, the idea of deferred grazing, as opposed to grazing control (cf. serial 6), is now becoming accepted amongst the graziers and a scheme which was inaugurated to promote a system of range management is discussed in more detail under serial 44. Permanent protection against erosion and the rehabilitation of the

watershed areas is, however, unlikely to be achieved without the combination of reafforestation and soil conservation measures in the form of earth bunding, and this is particularly true in mountain areas. Assistance in regard to the carrying out of such measures in two catchment areas and a forest area has been provided by the International Co-operation Administration of the American Government in the form of a grant of £11,418 to meet the cost of purchasing a tractor and two vehicles, and building a store and two reinforced concrete water tanks each of 25,000 gallons capacity for the supply of water to forest nurseries in the dry season. The equipment has been received and the building work completed. Two further tanks are to be constructed shortly.

52. In conjunction with the work being undertaken in the Ga'an Libah forest area, a C.D. & W. scheme (serial 49) has recently been approved for the construction of a Rest House, as it is not suitable for officers supervising the work in the area to be accommodated in tentage on account of the altitude and the inclement weather during the rainy season.

Estimated Total Cost 1950-1960.

1940/45 Acts - Net Expenditure	1950-1956	£39,352	£39,352
1955 Act - Estimated cost	1956-1960		108,600
Estimated cost, expansion of Scheme			22,000
Estimated Total Cost 1950-1960			169,952
Expenditure	1956/57	22,774	
Total Cost	1950/57	62,126	62,126
Estimated Expenditure 1957/60			107,826

24. Hargeisa Hospital.

1940/45 Acts: D.1471 and D.1471 A and B
Grant £85,128.

53. The scheme was approved in September 1950 with the object of providing a modern Group Hospital in Hargeisa to meet the increasing needs of the Somali population, as well as those of the European and Indian communities, to provide facilities for the training of Somali staff for the health services, and to provide specialist services which are not available in the smaller district hospitals.

54. The initial grant of £58,000 was increased in 1953 to £77,628 as a result of increased building and equipment costs. The hospital was formally opened in October 1954. A further grant of £7,500 was later approved to cover the cost of construction of a new Central Medical Stores. This grant was supplemented by the provision from Local Funds of £2,551 as a contribution towards the cost of the new Stores buildings which were completed in March, 1956.

Net C.D. & W. expenditure 1940/45 Acts	£84,985.
Total cost, Hargeisa Group Hospital and Medical Stores.	87,536.

25. Temporary Expatriate Staff - Education.

1940/45 Acts.	D.1512	Grant	£11,562
1955 Act	D.2803 grant to 1960		62,720
D.2803A Grant for capital part of expanded scheme			19,600
		Total:	93,882.

55. The original scheme, approved in December 1950 provided for the employment of three expatriate education officers, two of whom were engaged on technical teaching at the Trades School and the third in teaching general subjects in the Intermediate Schools.

56. When the scheme was extended under the 1955 Act,

the provision for the education officer recruited for the Secondary School (serial 33) and for the two Women Education Officers in the Girls Boarding School (serial 27) was transferred to this scheme for ease of administration. Provision, including housing was also made for an additional Education Officer for the Secondary School - to enable it to develop to 4th year status - and an additional Woman Education Officer was included for the Girls' Boarding School at Burao. A further post was also approved for a Woman Education Officer who was required to establish district elementary schools for girls.

57. The present position regarding the staff approved for this scheme is as follows:-

Trades School - 2 Education Officers. The second officer resigned in May 1956 and no replacement has yet been recruited.

Secondary School - 2 Education Officers. The second officer has not yet been recruited.

Girls' Boarding School- Burao - 3 Women Education Officers. Recruitment for the third post awaits the provision of accommodation which is now under construction.

Intermediate Schools - 1 Education Officer. This post has remained filled.

District Girls Elementary Day Schools - 1 Woman Education Officer arrived in June 1957.

58. In the expanded educational programme, supplementary provision has been made for the following Education Officers to be recruited from overseas in addition to the number at present provided for:-

Vocational Training Centre	1
Secondary School	3
Girls' Elementary Schools	3
Apprentice Training Officers	2

59. In view of the heavy building programme to be undertaken, provision has also been included for the temporary employment of 2 Inspectors of Works and a junior Accountant. At the time of writing a supplementary grant has been approved in respect of the capital requirements of the expanded scheme.

Estimated Total Cost 1950-1960.

1940/45 Acts - Net expenditure	1950-1956	£11,529	£11,529
1955 Act - Estimated cost (original)	1956-1960		62,720
Estimated cost (additional (including Local Revenue contributions)	1956-1960		59,141
Estimated Total Cost	1950-1960		133,390
Expenditure	1956-1957	7,873	
Total Cost	1950-1957	19,402	19,402
Estimated Cost (Including Local Revenue Contributions).	1957-1960		113,988

26. Trades School (Technical Education)

1940/45 Acts	D. 1549 Grant	£13,130
1955 Act	D. 2802 Grant to 1960 (part cost)	5,988
	D.2802A Grant for capital part of expanded scheme	30,710
	Total:	49,828

60. In March 1951 a grant of £9,900 was approved to establish a Trades School in order to improve the standard of craftsmanship in the Protectorate. A further grant of £3,230 was made in 1952. The school was opened in Hargeisa in October 1952 with an initial intake of 35 students and a second intake of 35 in 1954. The first output of boys left in 1956 and many of them proceeded to apprenticeships in the Public Works Department. Others went into direct employment, mostly with Government Departments.

61. When the scheme was extended under the 1955 Act, emphasis was laid on the need to provide a more advanced level of technical education to enable Somalis to take over supervisory posts at present filled by expatriate personnel. Provision was accordingly made for the construction of an additional workshop and classroom and these have already been completed.

62. The detailed planning of the future of technical education under the expanded educational programme awaits the recommendations of the Secretary of State's Adviser on Technical Education. A visit from the Assistant Adviser is awaited. Provision has, however, been included for —

(a) the construction of boarding accommodation for all pupils not resident in Hargeisa;

(b) the purchase of additional equipment for apprentice trainees;

(c) the purchase of additional equipment for more advanced work.

63. A supplementary grant of £30,710 has already been approved to meet the capital cost of the expanded scheme.

Estimated Total Cost 1951-1960.

1940/45 Acts - Net expenditure	1951-1956	£12,820	£12,820
1955 Act Estimated cost (original)	1956-1960		8,319
Estimated cost of expansion (additional, including local revenue contribution)	1956-1960		44,708
Estimated Total Cost	1951-1960		65,847
Expenditure	1956-1957	2,409	
Total Cost	1951-1957	15,229	15,229
Estimated Expenditure (including local revenue contribution)	1957-1960		50,618

27. Girls Boarding School (Girls Education)

1940/45 Acts D.1612 and A and B Grant	£28,145
1955 Act D. 2805 - grant to 1960 (part cost)	1,694
Grant for capital expansion of scheme included in Scheme D.3142 (serial 50)	19,600
Total:	49,439.

64. In May 1951 a grant of £23,645 was approved to establish a Girls Boarding School at Burao, and in 1953 and 1954 additional grants of £500 and £4,000 were approved to meet increased cost and to extend the school.

65. It has already been noted under serial 25 that the number of expatriate staff of the school was increased to 3 when the Temporary Expatriate Staff scheme took over this provision under the 1955 Act.

66. The school was opened in January 1953 with an intake of 30 pupils, 12 of whom were boarders. By the end of 1954 there were 47 pupils in 2 classes and a third class was opened in January 1955, by which time the capacity of the school had been increased to 100, with boarding accommodation for 48 pupils instead of the 24 originally provided for. The January 1953 entry completed their 4 years elementary course in March 1957; the girls will, however, remain in the school which will be converted to Intermediate level class by class.

67. The increasingly enlightened and welcome demand for girls' education has been recognised in the expanded education programme by the provision of:-

(a) the conversion of the existing part-boarding Elementary School at Burao to an all-boarding Intermediate School commencing in 1957.

(b) four new district girls elementary day schools to be located at Berbera, Hargeisa, Borama and

Burao. The latter will provide some boarding accommodation to meet the needs of girls from Las Anod and Erigavo.

68. A grant of £19,600 to cover the cost of the capital expansion of this scheme has been provided recently under scheme D.3142 - serial 50.

Estimated Total Cost 1951 - 1960

1940/45 Acts - Net expenditure	1951-1960	£25,959	£25,959
1955 Act - Estimated Cost (original)	1956-1960		4,704
Estimated cost of expansion (additional, including local revenue contribution).	1956-1960		25,822
Estimated Total Cost	1951-1960		56,485
Expenditure	1956-1957	920	
Total Cost	1951-1957	26,879	26,879
Estimated Cost (Including local revenue contributions)	1957-1960		29,606.

28. Purchase of Tractor and Implements for Hire to Farmers.

1940/1945 Acts D.1660 £3,000.

69. The scheme was approved in September 1951 to enable a tractor to be purched for hire to farmers. The service was introduced in 1953 with a Massey-Harris Diesel Tractor. A tractor mounted Safim three-furrow disc plough was brought into use in 1954 and has proved successful.

70. As noted under serial 21 Yemeni Farms, this scheme was merged with the Irrigation and Soil Conservation scheme serial 34 at the conclusion of the period covered by 1940/45 Acts.

Net expenditure 1940/45 Acts £2,615.

29. Agricultural Credit:

1940/45 Acts D.1740 and A	Grant	£3,100
1955 Act	D.1740 B grant to 1960	4,660
	Total:	7,760.

71. In February 1952 a grant of £2,500 was approved in order to provide free loans to progressive farmers on certain clearly specified conditions. A supplementary grant of £600 was made in 1955 by which time the scheme had proved popular and had done much to encourage good farming practice.

72. A total of 249 loans of up to £50 each in value have been made since the inception of the scheme. They are repayable over a period not exceeding four years and are provided in the form of services rendered, or materials or equipment purchased by the Department of Natural Resources. Loan repayments are credited to a revolving fund from which new loans are authorised. Increased scope has been achieved by a further grant of £4,660 approved under the 1955 Act.

Estimated Total Cost 1952-1960.

1940/45 Acts - Net expenditure	1952-1956	£2,719	£2,719
1955 Act - Estimated cost	1956-1960		4,660
Estimated Total Cost	1952-1960.		7,379
Expenditure	1956-1957	1,118	
Total Cost	1952-1957	3,837	3,837
Estimated Expenditure	1957-1960		3,542.

30. Hydrological Survey

1940/45 Acts D.1812 and A and B Grant £30,832
1955 Act D.3041 Grant 1956 - 58 24,890
Total: 55,722.

73. The scheme was established in July 1952 by a grant of £21,000, - increased later in the year to £24,500, - following the Irrigation Survey (serial 11) carried out by Brigadier Hawes. The original objects of the Survey were to collect hydrological data and to undertake investigations and surveys over a 5 year period with the purpose of establishing such irrigation projects as the hydrological data appeared to justify. In January 1953 an extension to the scheme was approved, and the supplementary grant of £14,732 provided for the services of a Soil Surveyor and Agronomist, and for certain experimental work to be undertaken.

74. The Hydrologist arrived in March 1953. Certain Pilot schemes were subsequently prepared and these were subsequently incorporated in the Irrigation and Soil Conservation scheme (serial 34) which was approved in July 1954. Information is collected at a number of places where men trained as gauge readers are stationed to measure the discharges in the various "Tugs" (seasonal sand rivers). Rainfall statistics are recorded at 21 locations.

75. As the scheme has progressed, the Hydrologist has been able to devote more time to the direction of the pilot projects included under the major Irrigation and Soil Conservation scheme (serial 34). The Hydrologist also travels throughout the Protectorate to advise the Director of the Department of Natural Resources and District Agricultural Officers on water control and irrigation measures.

76. The extension of the scheme under the 1955 C.D. &

Act provided additionally for an Assistant Surveyor.

Estimated Total Cost 1952-1960.

1940/45 Acts - Net expenditure	1952-1956	£23,973	£23,973
1955 Act - Estimated cost	1956-1960		42,520
Estimated Total Cost	1952-1960		66,493
Expenditure	1956-1957	6,250	
Total Cost	1952-1957	30,223	30,223
Estimated Cost	1957-1960		36,270

31. Development Officer.

1940/45 Acts	D. 1865	Grant	£4,096
1955 Act	D. 2804 - Grant to 1960		6,790
	Total:		10,886.

77. A scheme was approved in October 1952 to cover the cost of providing an officer to assist in the routine administration of Agricultural and Veterinary development schemes. The scheme was extended under the 1955 Act as the number and magnitude of development schemes administered by the renamed Department of Natural Resources continues to increase.

Estimated Total Cost 1952-1960.

1940/45 Acts - Net expenditure	1952-1956	£3383	£3,383
1955 Act - Estimated cost	1956-1960		6,790
Estimated Total Cost	1952-1960		10,173
Expenditure	1956-1957	1593	
Total Cost	1952-1957	4976	4,976
Estimated Expenditure	1957-1960		5,197

32. Juvenile Wing, Central Prison Mandera:

1940/45 Acts D.1888 and A	Grant	£11,050.

78. In November 1952 a scheme was approved to provide

accommodation for juvenile offenders which would be separate from the main Prison at Mandera. Provision was also included for the building of a house for the Prisons Officer who would be in charge of the juvenile wing, and for other staff quarters. The scheme covered capital cost only, recurrent expenditure being met from the Protectorate budget.

79. The officer's quarter was completed but, following recommendations made by a Committee under the Chairmanship of the Attorney General, the building of the new wing was suspended and the staff quarters were not started. It was later decided that the time was not appropriate, nor were the proposed buildings suitable, for the establishment of a Reformatory type of institution for the treatment of juvenile offenders. It was decided, instead, that existing buildings within the central prison should be modified to provide completely separate accommodation for 60 convicted juveniles with criminal records. The scheme has, therefore, been closed down and the stores and building materials which were not utilised have been sold to the Protectorate Government. The net expenditure for the officer's quarter and the part-built wing was £3,370. The quarter is required for other increases in the senior establishment of the Prisons Department and it is proposed to incorporate the other buildings in the new Police Training School.

33. Senior Secondary School (Secondary Education)

1940/45 Acts D.2021 and A	Grant	£18,485
1955 Act D.2827	Grant to 1960(part cost)	8,214
	Total:	26,699.

80. Following the recommendations of the Binns Commission on African education, a scheme was approved in August 1953 for the establishment of a Senior Secondary School to enable students to take the General Certificate of Education within

the Protectorate. The school was opened in temporary accommodation at Sheikh in August 1953, and the second intake was accepted in July 1954.

81. The school moved in December 1954 to Amoud near Borama to the buildings constructed originally for the Junior Secondary School which by then had become the Vocational Training Centre. The Centre took over the vacant Secondary School buildings at Sheikh.

82. A supplementary grant of £11,002 was approved in 1954 to permit the construction at Amoud of a fully equipped workshop and the provision of equipment and an electrical supply for the Science Laboratory, together with a house for the Education Officer. To meet the requirements of the Vocational Training Centre which had moved to Sheikh, the grant also provided for the addition to the Vocational Training Centre at Sheikh of a classroom, office and store and a dormitory.

83. The extension of the scheme under the 1955 Act provided for the construction of additional dormitory accommodation at Amoud. Provision was made for the first time for recurrent costs to be met from C.D. & W. funds on a tapering basis, local revenue assuming the full recurrent costs by 1959/60. The grant approved was accordingly £8,214 only, compared with the total estimated cost to 1960 of £21,096.

84. The expanded educational programme has taken account of the fact that the present secondary school boarding accommodation provides for an annual intake of a maximum of 25 boys. It is recognised that this small number cannot meet the increasing requirement for men with a background of secondary education and that neither the buildings nor the site of the existing small school are suitable for any considerable expansion. It is therefore

proposed to include provision for the construction of an entirely new secondary school at Sheikh to accommodate in the first instance 200 boys i.e. an annual intake of 50, and it is envisaged that the accommodation may later be extended to provide for a total of 300 boys with an eventual annual intake of 75.

Estimated Total Cost 1953-1960.

1940/45 Acts - Net expenditure	1953-1956	£16,078	£16,078
1955 Act - Estimated cost (original)	1956-1960		16,116
Estimated cost for expansion (additional including local revenue contribution)	1956-1960		132,047
Estimated Total Cost	1953-1960		164,241
Expenditure	1956-1957	5,486	
Total Cost	1953-1957	21,564	21,564
Estimated expenditure (including local revenue contribution).	1957-1960		142,677

4. Irrigation and Soil Conservation Projects.

1940/45 Acts	D.2224(i - vi)	Grant	£60,000
1955 Act	D.2984	Grant 1956/58	57,900
		Total:	117,900.

85. It has already been explained how the original Irrigation Survey of 1951 (serial 11) and the Hydrological Survey Scheme (serial 30) led to the preparation of Pilot Irrigation schemes. The proposals for Ber, Dobowein and Kabri Bahar were included as individual projects in a scheme approved in July 1954 for Irrigation and Soil Conservation. This scheme also provided for the purchase of mechanical flood control and soil conservation machinery, for the services of a European Mechanic and for a Bonification project.

86. When the scheme was extended under the 1955 C.D. & W. Act, it was revised to include two schemes connected with soil conservation, to which reference has already been made namely Yemeni Farms (serial 24) and Tractor Hire (serial 28). The Bonification project was, however, excluded and provided as a separate scheme, details of which are given under serial 39.

87. The three separate Pilot Irrigation projects provided in the original scheme now form part of one comprehensive scheme, which also includes provision for financing other irrigation projects of a smaller scope. A total of 5 Ferguson Tractor Units were purchased for the projects included under the original scheme.

88. In 1956, the expanded scheme took over the bund-building team previously provided under Yemeni Farms and the Massey Harris Diesel tractor provided under the Tractor Hire Scheme. Three replacement tractor units were also purchased in 1956 together with a mobile workshop for the use of the European Mechanic, a lorry, and a considerable quantity of agricultural implements and spares.

89. The International Co-operation Administration of the American Government has been most generous in providing a grant of $20,000 for the purchase of machinery to be used on the major irrigation works. The following equipment has already been received and is in use:-

4 International Harvester Crawler Tractors

4 Bull Graders

2 Sterling Earth Scarpers

2 Blaw-knox Rippers

1 Lorry

1 Land Rover

Various Water tanks and trailers, tentage, and spare parts.

90. A further 2 Ferguson Tractor Units and a Caravan for the European Mechanic are on order. The cost of a store built in Hargeisa to house some of the equipment and spares was also provided from the I.C.A. grant.

91. The following progress has been made in the two original Pilot Irrigation Schemes. As described in serial 30, these are under the control of the Hydrological Engineer.

Der Irrigation Scheme.

92. The principal object of this scheme is to utilise the waters of the Tug Der to flash irrigate a block of land. The first essential task of returning the tug back into its original course has been completed. This first phase of the scheme, necessitating the removal of approximately 150,000 cubic yards of earth to form protective banks and levees, was undertaken by using the heavy earth-moving machinery which had been taken over by the Protectorate Government from the Belleh Construction scheme (serial 5).

93. The second phase, which is now in progress and in which the machinery supplied by the I.C.A. is being utilised, embraces the construction of the headworks, the excavation of the main canal and the distribution of the water on to the farming area. When complete, the headworks will allow a proportion of the flood water to pass into the 2½ mile canal leading to the farm area. When the river is in flood the water carries suspended matter which varies in volume from 10% to as much as 30%, and to prevent this from entering the canal, a weir is being constructed across the tug in order to form a small lake or stilling pond where suspended matter will sink; this silt will ultimately be cleared through small sluices. The first mile and a half of the main canal is nearing completion and although work on the farming area is only just about

to commence, it is hoped that part will receive some irrigation water during 1957.

94. Graphs of every individual *tug* passing through Ber for the last 4 years have now been plotted. From these have been deduced the amount of water that could have been used for irrigation purposes. On the basis of flooding the farmland to an aggregate depth of 2 feet per year, 560 acres could have been irrigated in 1953, 1,100 acres in 1954, 720 acres in 1955 and 644 acres in 1956.

Dobowein Experimental Scheme.

95. This project bears no resemblance from an engineering point of view to the Ber Scheme; it consists of a wide delta brought about by the intermittent discharge of flood water, the frequency, extent and depth of which depends on the intensity and duration of the rainfall in the catchment area. The Tug Masingo debouches from the hills about 20 miles north of the delta at Dobowein which is about a mile and a half wide and which, during the rainy season, frequently becomes impassible owing to flood waters moving across it.

96. Two experimental designs to collect and control water for irrigation purposes are envisaged. In the first, the flood water is collected into a large reservoir from which it can be supplied to bunded fields through an outlet pipe controlled by a valve. The second design entails the excavation of two herring-bone drains emptying direct into a canal from which distribution channels will lead the flood water to bunded fields.

97. Pilot work carried out early in the scheme suggests that the second design, slightly modified, is likely to prove more satisfactory. Work on this scheme will

progress as soon as the heavy earth-moving equipment can be released from the Ber Irrigation Scheme.

Estimated Total Cost 1954-1960.

1940/45 Acts - Net expenditure (less Bonification included in serial 38)	1954-1956	£15,701	£15,701
1955 Act Estimated cost(original)	1956-1960		103,232
Estimated cost of expansion scheme	1956-1960		31,000
Estimated Total Cost	1954-1960		149,933
Expenditure	1956-1957	18,054	
Total Cost	1954-1957	33,755	33,755
Estimated Expenditure	1957-1960		116,178

39. Purchase of Site for Gum and Incense Warehouse, Aden.

1940/45 Acts D.2235 Grant £2,400

1955 Act. Scheme extended with same grant and under same number.

98. The need for the provision of proper storage facilities in Aden for Gum and Incense exported from this country has already been mentioned in the notes on the Forestry scheme serial 23.

99. A grant of £2,400 was approved in July 1954 to cover the estimated cost of a site on the Maala foreshore in Aden. There was unfortunately a mistake over the site originally selected which eventually proved not to be available but arrangements were completed in May 1957 for the purchase of an alternative site at a cost of approximately £[illegible],700. Detailed drawings of the warehouse which it is proposed to build are now under preparation and the finance required for the construction of the building will be the subject of an application for a further C.D. & W. grant.

C. SCHEMES APPROVED AFTER 1ST JANUARY 1955.

36. Intermediate Day School.

1940/45 Acts D.2552	allocation	£3,096
1955 Act extended under same number -	allocation	6,154
	Approved grant D.2552 -	9,250

100. In August 1955 a grant of £9,250 was approved for the building of an Intermediate Day School in Hargeisa to accommodate a maximum of 120 pupils from annual intake of 30. The construction was phased over 2 years and by January 1956 the first phase, which included the provision of two classrooms, was sufficiently complete to permit occupation. The second phase, which included a further two classrooms and a workshop, has now been completed. The cost of providing playing fields is also being met from the grant.

Estimated Total Cost			£9,250
1940/45 Acts - Net expenditure	1955-1956	£3,096	
1955 Act - Expenditure	1956-1957	3,671	
Total Cost	1955-1957	6,767	6,767
Estimated cost - 1957 to completion			2,483

37. Camel Abattoir and Factory

1955 Act D.2801	Grant	£68,000

101. It has already been stressed in this review how the absence of any effective form of pasture management has led to a serious denudation of the grazing, particularly along the principal watersheds and in wide areas around the permanent wells. Details have been given in serials 6, 23, 34 and 44 of the measures which are now being taken to safeguard the country's basic asset on which, at present, the economic life of the people is almost wholly dependant.

102. As a further means of alleviating the pressure on the pastures, it was planned to reduce the number of old and uneconomic camels by providing an economic method of utilising this stock. To this end it was proposed to set up a factory which would purchase approximately 1,000 "cull" animals a month for slaughter and processing into protein stockfeed, refined fat and bone meal. It was hoped that the operations of the factory would later be extended to the production of dried meat for export and by the establishment of secondary industries such as tanning and soap making. In May 1956, therefore, a scheme was approved to finance the establishment of a Camel Abattoir and Factory at Berbera. An expatriate Manager was appointed during 1956 and certain items of building equipment and a vehicle have been received.

103. However, when a re-examination of the capital outlay and the operating costs of the factory was undertaken in the latter part of 1956, it was found that there had been a very considerable increase in the estimated cost of running the factory; it also appeared to be unlikely that the required number of camels would be obtainable at or near the original price on which the estimates were based in 1954 and which represented the maximum economic price which the factory could pay. It was decided therefore that it would not be economically justified to embark upon the scheme as it was originally devised.

104. Consideration is now being given to the establishment of a small abattoir and cold store to freeze mutton carcasses for export. A limited market for frozen mutton exists in Aden and is thought to be capable of expansion to victualling of shipping calling at the port. The frozen mutton would be of better quality than that obtained in Aden from sheep exported there from Somaliland on the hoof,

since the animals suffer some deterioration on the voyage. A ready demand exists for offals which would be exported frozen and boxed. The project would be designed to deal with a minimum of 20,000 and a maximum of 40,000 sheep a year. It would be unlikely seriously to affect the present established trade of the export of livestock on the hoof, which represents the principal export trade of the Protectorate, since Moslems generally require their meat to be fresh killed.

Estimated Total Cost	1956-1960	£68,000
1955 Act - Expenditure	1956-1957	2,584
Estimated expenditure	1957-1960	65,416

38. Bonification.

1940/45 Acts - Part of Irrigation and Soil Conservation Scheme D.2224(serial 34) - Project grant	£10,360
1955 Act D.2808 - Grant to 1960	21,000
Total:	31,360.

105. It has been noted (serial 34) that the original Irrigation and Soil Conservation scheme approved in July 1954 included a project for the establishment of a Demonstration and Bonification Area, and that under the 1955 Act the continuation of the project was provided as a separate scheme.

106. The scheme provides for rural bonification to be undertaken in a selected area to demonstrate improved land use, soil conservation and dam construction.

197. The area selected for the project lies some 4 miles west of Hargeisa and comprises a complete catchment of some 4 square miles on the north side of the Hargeisa valley, in an area which was a typical example of a poorly cultivated, overgrazed and rapidly eroding piece of country. The overall plan follows closely on that drawn up by

Mr. Collett, Soil Conservation Officer, Basutoland who visited the Protectorate in September and October 1955. The work to be undertaken can be grouped under three closely linked heads:-

(a) The Protection of the Grazing areas in the upper sections of the catchment area by a series of terraces, 7 feet at the base and 1½ feet high.

(b) The collection and concentration of run off, which normally finds its way into a series of large and ever increasing gulleys, into diversion channels which lead on to bunded fields.

(c) The erection of silt and water storage dams in the central _tug_ bed.

108. By the time the rains broke in 1956 all the upper farms - some 17 in number - had been bunded, all areas of active gulley erosion had been protected with storm drains and 3 substantial silt-trap dams had been constructed in the main _tug_. The crops from the farms though satisfactory were not as good as had been hoped and this may be attributed to the very heavy seeding rate, the uneven settling of water behind the bunds due to lack of levelling, and a dry period during the strong south-west monsoon wind.

109. In order that the maximum instructional value may be derived from the scheme, a classroom and dormitory block situated in the compound of the area is now under construction. This will enable farmers, elders and other interested persons to visit the area from other parts of the Protectorate.

Estimated Total Cost 1955-1960.

1940/45 Acts - Net expenditure	1955-1956	£4,359	£4,359
1955 Act - Estimated cost	1956-1960		21,000
Estimated Total Cost	1955-1960		25,359
Expenditure	1956-1957	3,011	
Total Cost	1955-1957	7,370	7,370
Estimated Expenditure	1957-1960		17,989

39. Mobile Cinema.

1955 Act D. 2819 Grant £2,850.

110. In May 1956 a scheme was approved to provide for the purchase of a land rover, specially mounted with a cinema projector and ancillary equipment for use as a mobile cinema unit by the Information Office. This equipment will replace the existing mobile cinema which consists of a 16 mm. projector and portable generator, housed in an old 3-ton lorry which is unsuitable for travelling off the main road. The new unit will enable remote settlements frequented by the nomadic population to be provided with a service.

Estimated Total cost	£2,850
1955 Act - Expenditure 1956-1957	231
Estimated expenditure 1957 to completion of scheme	2,619

40. Central Broadcasting Station.

1955 Act. D.2849 - Grant provided for contribution £2,250.

111. A scheme for the provision of a new Broadcasting Station was originally approved in February 1954 under the 1940/45 Acts and funds were provided from the central allocation of C.D. & W. funds. Further details of this "Central" scheme will be found in serial 3 of Part II.

112. When the scheme was extended under the 1955 Act,

provision was included for the construction of a tarmacadamised road at a cost of £4,500. Since the Broadcasting Station will be only one of the sites served by the road, it was considered appropriate that half the cost of the road should be borne by the Protectorate C.D. & W. allocation, the balance being provided by the "Central" allocation.

41. Training Scholarships and Courses Abroad.

1955 Act D.2876 and A and B Grant 1956/58 in respect of courses started 1956/57 and 1957/58 only	£38,082

113. Under the 1940/45 Acts, provision to meet the cost of sending Somalis overseas for advanced education or training was met from the Central allocation of C.D. & W. funds under a scheme (known as the £1 million scholarship scheme) which was administered by the Colonial Office.

114. Under the 1955 Act, provision is being made out of the Protectorate allocation of C.D. & W. funds for the cost of training courses commencing in 1956 and thereafter. 23 candidates commenced their overseas training in 1956, and a total of 68 candidates have been selected for 1957 and will begin their overseas training later this year. The courses vary in duration according to the training required. The minimum period for an overseas course is usually six months, but candidates studying for example for the General Certificate of Education followed by a full professional qualification in medicine may be away from the territory for seven or eight years.

115. The training courses are designed specifically to accelerate the process whereby Somalis will become qualified to take over higher posts in the Civil Service.

116. The grant of £38,082 so far approved is in respect of the requirement to the 31st March 1958 but it is the Government's purpose to ensure that the process of

training and devolution of senior posts will not be hampered by any shortage of financial provision, and further grants will be sought as the need arises.

Estimated Total Cost 1956-1960 of courses commenced before 31st March 1960	£162,840
- 1955 Act - Expenditure 1956-1957	6,155
Estimated expenditure 1957-1960	156,685.

42. Temporary Expatriate Staff, Public Works Department

1955 Act D. 2895 Grant to 1960 £41,052

117. This scheme was approved in July 1956 to provide additional supervisory staff and transport for the Public Works Department. The purpose of the scheme was to enable a major part of the various building projects in the Development Plan which was drawn up for the new period under the 1955 Act to be completed within a period of 3 years, and to meet the need for skilled staff to give more time to the supervision and training of Somali tradesmen and junior supervisory staff. The Inspectors of Works and transport have already arrived.

118. With the approval in principle by the Secretary of State of the enlarged development programme, which has as its target a total expenditure by 1960 of £2.47 millions (approximately £1 million of which is represented by capital building works), it became apparent that the capacity and resources of the Public Works Department should be further strengthened by the purchase of additional transport and building equipment, and by an increase in the number of staff in the supervisory grades. It is hoped to receive shortly the Secretary of State's approval to the extension of the scheme which would provide for the recruitment of an Accountant, 5 Inspectors of Works and 3 Foremen, and a number of clerks and drivers. The additional transport

will consist of 2 heavy vehicles for transporting bulk stores, 7 lorries and 5 land rovers, and provision has been made for the purchase of building equipment and plant to the value of over £15,000. Capital construction will consist of additional workshop and storage accommodation and houses for the expatriate staff.

Estimated Total Cost	1956-1960	£128,000
1955 Act - Expenditure	1956-1957	4,976
Estimated expenditure	1957-1960	123,024

43. Intermediate Boarding School.

1955 Act D.2896 Grant to 1960	£38,600
D.2896A - Grant to cover capital provision under expanded education programme	81,675
Total:	120,275.

119. In July 1956 a grant of £38,600 was approved as part of the original development plan under the 1955 Act to provide for the capital and recurrent costs up to 1960 (less expatriate staff) of an Intermediate Boarding School near Erigavo to serve the five Elementary Schools in the eastern part of the Protectorate. So that the Intermediate classes could be started without delay, the school was opened in temporary accommodation in Erigavo in July 1956, the boys being boarded out in temporary accommodation in the town.

120. The expansion of the education programme which has already been approved in principle, provides for an increase in educational facilities at all levels. The size of the Erigavo Intermediate Boarding School is being doubled as construction proceeds. In addition, work will commence this year on one Intermediate Boarding School at

Gebileh in the west of the Protectorate, and on two additional Intermediate Day Schools. Further Intermediate Schools are planned for subsequent years.

Estimated Total Cost	1956-1960	£153,703
1955 Act - Expenditure	1956-1957	3,918
Estimated Total Cost	1957-1960	149,785

44. Range Management (Pilot) Scheme

1955 Act D.2944 Grant 1956/57 only £8,768.

121. Reference has already been made to the introduction of some form of deferred grazing.

122. By far the most important single step taken in 1956 in the field of pasture management was the successful closure of grazing of some 700 square miles of the Aroreh plain near Burao for some 8 months from June 1956 to January 1957. This closure has since been followed by the closure of other areas at the request of the tribes normally using the pastures. It is hoped to improve on the system by the introduction of rotational grazing so that greater benefits may be obtained from the rangeland on a basis of sustained yield.

123. The Range Management (Pilot) Scheme was approved in August 1956 for an experimental period of two years. The C.D. & W. grant was made in respect of 1956/57 only and provided for the services of a Pasture Officer and a limited staff, and for the construction of a house and office. The remainder of the personnel and transport required for the operation of the grazing closures is provided from the Forestry scheme. For the financial year 1957/58, provision has been made for the cost of continuing the scheme on its present basis to be met from the contribution which is being made from local revenue towards development. It was not possible to build the house during 1956/57 so that the capital provision in the C.D. & W. scheme has been extended to 1957/58.

124. Difficulty has been experienced in the recruitment of a specialised Pasture Officer, and it has therefore been decided to recruit a suitably experienced Assistant Conservator of Forests instead.

Estimated Total Cost	1956	£16,946
1955 Act - Expenditure	1956-1957	2,264
Estimated expenditure	**1957-1959(part)**	14,682

45. Agricultural Education.

1955 Act D.2945 Grant £2,500

125. In August 1956 a grant of £2,500 was approved to enable a small training centre in rural science and economy to be established in association with the Vocational Training Centre. It is intended that the Rural Science Centre should provide a course of 1 year's duration.

126. Pending the completion of the buildings, the first course was started in temporary accommodation with staff provided by the Department of Education. The curriculum has been drawn up by the Department of Natural Resources and the course is attended by Agricultural Instructors, Stock Inspectors and Forest Rangers.

127. The building was completed in June 1957, and consists of a classroom, laboratory and store. It has been constructed in Hargeisa as an extension of the Trades School which will take over the accommodation when the Rural Science course transfers to the Vocational Training Centre.

Estimated Total Cost		£2,500
1955 Act - Expenditure	1956-1957	909
Estimated expenditure	1957-1958	1,591

46. Somali Dictionary

1955 Act D.2970 Grant £1,720.

128. During the past 10 years three detailed studies of the Somali language have been undertaken. Whilst an excellant grammar and much detailed knowledge of the language now exists, both instruction and research in the language are handicapped by the lack of a proper dictionary. The dictionary produced by Larajasse in 1897 is now not only out of print but also out of date. It was therefore proposed that a Somali/English - English/Somali Dictionary should be produced by Dr. R.C. Abraham who had already published a work entitled "Principles of Somali" and who had accumulated some material required for the production of a Somali Dictionary. A grant of £1,720 was approved in September 1956 to meet the estimated cost of preparation and publication of 500 copies.

Estimated Total Cost		£1,720
1955 Act - Expenditure	1956-1957	100
Estimated expenditure	1957-1958	1,620

47. Tuberculosis Control.

1955 Act D. 3108 Grant 1956/58 £44,600.

129. It has been known for a long time that tuberculosis is widespread in Somaliland and the report of a World Health Organisation Survey Team which visited the country in 1955 confirmed that the incidence of the disease is one of the highest in Africa. It has also been established that the disease does not in Somaliland take the acute form found in many similar communities elsewhere, in that the Somali, whilst apparently being very susceptible to infection, lives a long time in a lowered state of health; very frequently he is unable to walk and so is a call on his relatives for sustenance. The comparatively few deaths

from tuberculosis, coupled with the long period of infection, not only result in there being no break in the chain of infection but a great spread of the infection is thereby caused. A scheme was therefore drawn up after consultation with a number of experts to provide a country-wide campaign for the treatment of infectious cases with a view to breaking the chain and spread of infection, and to improving the health of this section of the population so that they can support themselves. At the end of 1956, approximately 22% of the toatl number of hospital beds were set aside for cases of pulmonary tuberculosis, but even so there was a long waiting list for admission so that a patient's condition could deteriorate gravely between diagnosis and admission. About 600 cases of active tuberculosis are diagnosed each year at present and, as only about 350 of these can be accepted for treatment each year, another 250 cases are added to the pool of infection.

150. In the scheme which was drawn up and approved in March 1957, the campaign proposed envisages a four pronged attack:-

(a) Large scale tuberculin testing of the population and vaccination with B.C.G. of those who show a negative reaction.

(b) Combined with (a) above, an intensive case finding programme based on sputum testing, clinical examination etc. of those who have been in contact with open cases, and X/Ray examination of all suspects.

(c) Considerable expansion of both inpatient and outpatient treatment facilities, for the treatment of all cases found.

(d) Intensification of the present programme of health education with a view to improving housing standards and raising the general level of personal hygiene and sanitation, since the mere discovery and treatment of cases will have little effect without fundamental improvement in the habits and living standards which contribute so effectively to the dissemination of tuberculosis.

131. Assistance is being sought from United Nations Agencies in the form of transport, tuberculin and B.C.G. vaccines and apparatus, drugs and X'Ray films and an Anti-tuberculosis Team consisting of a Doctor, Public Health Nurse and a Laboratory Technician.

132. The plan envisages the treatment of every patient over a period of 18 months, the first three months being combined with bed rest and medical supervision in Hospital, the next three months being combined with bed rest and less intensive medical supervision in one of the smaller hospitals or dispensary tuberculosis shelters near the patient's home, and the remaining 12 months treatment being as an outpatient. It is estimated that about 1,000 new cases of tuberculosis will be brought under treatment each year and that at any one time approximately 2,000 patients will be under treatment. The C.D. & W. part of the scheme consists principally of the capital provision required to achieve an increase in the number of hospital beds earmarked for the treatment of cases of tuberculosis from 180 to 500, by the extension of hospital wards and the construction and equipment of dispensary tuberculosis shelters. No expenditure was incurred before the end of the financial year 1956/57.

133. As an ancillary measure to the scheme, the Chief Medical Assistant, who is in administrative charge of the Hargeisa Tuberculosis Hospital, has proceeded to the

United Kingdom to receive further training in the adminstrative and domiciliary aspects of tuberculosis control.

Estimated Total Cost (excluding W.H.O.
and U.N.I.C.E.F.) 1957-1960 £94,887.

48. Hargeisa Water Supplies Investigation

D. 3121 Capital grant £80,000.

134. The need for a proper water supply for the capital town of the Protectorate has long been recognised. The present supplies are drawn from shallow wells in the bed of the Tug and the problem of augmenting the supplies has been the subject of a number of preliminary investigations and reports which go back as far as 1941.

135. Recent preliminary investigations have emphasised that the problem is an extremely complex one indeed and it was decided therefore that a fully comprehensive survey and investigation must be carried out by a firm of specialist consultants. The decision was endorsed by the Secretary of State's advisers and a scheme was approved in April 1957. It is proposed that deep-bore drilling in Hargeisa will be undertaken and at the same time the present hydrological examination of near-surface supplies within a radius of some 20 miles of Hargeisa will be intensified. If adequate supplies of water are found from deep-bores in Hargeisa, the development cost and the cost of maintaining the supplies will be only a fraction of the cost which would be involved in piping water from a source several miles distant. Until, therefore, the deep-bore potential is known it is not possible to ascertain the likely cost of providing a permanent and adequate supply. As the investigation proceeds, and in the light of the information obtained, it is intended that measures should be undertaken temporarily to augment existing supplies so as to alleviate the very acute water shortage which is at

present experienced during the dry season. It has been estimated that this work may cost up to £20,000 and it is proposed that this should be met from within the present grant of £80,000.

136. It is anticipated that the engineer appointed by the consultants will arrive towards the end of July. Steps have already been taken to build a house and to provide office accommodation.

Estimated Total Cost 1956-1960 (provisional) £200,000.

49. Rest House, Ga'an Libah.

D. 3131 Capital Grant £1,500.

137. This scheme was approved in April 1957 to provide for the construction of a rest-house at Ga'an Libah. It will enable officers who are required to work in the area in connection with Forestry and other development schemes, to spend longer periods supervising the work than is possible when living under tented conditions, particularly during the cold season when the camp sits are liable to flooding during the frequent heavy storms. The work has already been put in hand under the supervision of the staff of the Department of Natural Resources.

Estimated Cost £1,500.

50. Education.

D. 3142 Initial grant of £55,440 for capital construction only for:-

Administration	£10,250
Adult Education	5,000
Elementary Education	3,575
Girls Education	19,600
Transport Pool	6,215
Vocational Training	10,800

138. Note has been taken under serials 25, Expatriate

Staff, 26 Trades School, 27 Girls Boarding School, 33 Secondary School and 43 Intermediate Boarding School of the extensions proposed to these schemes under the Expanded Education Programme.

139. The following details are given in respect of aspects of the expanded educational development programme which are not elsewhere provided for. The grant which has so far been approved will enable the necessary capital works under the subheads listed below to be undertaken. The additional capital construction work for Girls Education (serial 27) has also been included in this grant.

140. Administration. The proposals under the Expanded Education Programme provide for a measure of decentralisation by the establishment of a District Education Officer at Burao and for the appointment of an Officer in charge of Intermediate Schools who will be based on Hargeisa. To obviate possible shortages of educational supplies, a central store will be established at Hargeisa together with a shop from which suitable books for those who have recently acquired literacy may be obtained. Attached to this will be a central reference library for teachers.

141. Transport Pool. To meet the requirements of inspecting staff and of Intermediate Boarding Schools (for collecting stores and taking boys to hospital etc.) provision is made for the purchase and running costs of seven land rovers and two 3-ton lorries.

142. Elementary Education. The plan provides for the opening of 20 additional Elementary schools by 1960. Provision of a contribution of up to 50% of the cost of each school (including furniture) has been provided for as well as assistance towards the cost of teachers' houses in places where no other accommodation is available. The amount to be provided by local committees in the form

of building materials etc., as their contribution towards the cost of a school, will be determined according to local circumstances.

143. Adult Education. This will provide a residential centre at Sheikh taking 30 adults for each course of 9 months duration; for evening classes at district headquarters, and for the expansion of an existing scheme which is designed to to provide simple Arabic education for the nomadic population.

144. Vocational Training. It is intended to enlarge the Vocational Training Centre under the expanded programme to enable it to accommodate an annual intake of 30 students for a two year course. The Centre will be primarily devoted to teacher training but a rural science course will also be provided for members of the Department of Natural Resources. The Centre is at present located at Sheikh but will transfer to Amoud to the buildings at present occupied by the Secondary School when the latter moves to its new premises at Sheikh in 1959.

Estimated Total Cost (including Local Revenue Contribution) 1957-1960:-

Administration	£12,621
Adult Education	15,740
Elementary Education	21,644
Girls Education (see serial 27)	-
Transport Pool	12,539
Vocational Training	12,483
Total:	75,027

51. Social Welfare Training:

D. 3146 Grant £800.

145. This scheme will provide for a selected Somali candidate to be sent to the United Kingdom to undergo a course of intensive training of some 6 to 8 months in institutional administration and social wlefare work.

On completion of the training period it is intended that the candidate should eventually take over the administration of the Save the Children Fund Home in Hargeisa from the present expatriate Administrator. The Administrator is provided by the generosity of the Save the Children Fund who also contribute largely to the local costs of the Home, and the Somali candidate will also be an employee of the Fund.

52. Berbera Port

D. [illegible]9 Capital grant £283,000.

146. In 1951 and 1952 a survey was undertaken by a firm of harbour consulting engineers on the port of Berbera and following consideration of the report submitted to Government in 1953, proposals were submitted to the Secretary of State for improvement of the port facilities. These will provide initially for berthing and unloading facilities a low-tide depth of 3 fathoms at the end of a 300-foot long extension to an existing [illegible] jetty. The completion of this project will enable small coastal vessels to discharge alongside instead of into lighters.

147. The detailed work in the preparation of constructional drawings and specifications took longer than originally anticipated and it was not possible in the event to invite tenders for the contract until the latter part of 1956. An acceptable tender was eventually obtained and a contract is being concluded.

148. A grant of £283,000 has been approved to cover the estimated contract cost of providing a 30-foot wide pier to 3 fathoms depth. The contract also provides for the construction of an additional bay at the pier-head together with the provision of a narrow gauge track from the pier-head to the wharf. Mooring buoys for deep-sea craft will be

provided to facilitate the use of the harbour by ocean-going vessels.

149. Specifications and estimates are now being prepared for the provision of shore installations, a 10-ton fixed crane at the pier-head, a service launch and light railway trolleys. These ancillary items will be the subject of a later application for a supplementary grant.

150. A provisional allocation of £550,000 has been made to cover the cost of the complete project.

D. APPLICATIONS SUBMITTED TO THE SECRETARY OF STATE AND AWAITING APPROVAL.

Hargeisa Airport. £15,000.

151. The traffic at the Hargeisa air terminal has increased considerably over recent years and the present buildings are not only most inconvenient and insecure for customs and immigration control, but they are quite inadequate from the point of view of providing reasonable amenities for passengers. Some operational difficulty is also experienced by the fact that the airport control tower is situated on the opposite side of the runways to the air terminal buildings. The present buildings are over 15 years old having been provided as a temporary expedient to meet wartime requirements. They are of mud-brick construction and are not, therefore, capable of modification or extension. It is proposed to construct completely new terminal buildings which will provide for an integral control tower and a more conveniently sited aircraft parking apron. The buildings have been designed to provide adequately for the present volume of passengers and for the operational requirements of the airport control staff and airline companies. Provision has also been included for the installation by an oil company of a bulk fuel installation to facilitate the refuelling of aircraft.

Rural Water Supplies

1957/58 £40,000

1957-1960 198,723.

152. This scheme has already been approved in principle by the Secretary of State but awaits the issue of a formal C.D. and W. grant. It provides for the investigation and development of rural water supplies to be carried out under

the general supervision of the Director of Public Works. The engineer who will be in charge of the scheme has already been appointed. Advice and technical information on geological and hydrological matters will be provided by the Geological Survey Department. It is proposed that the execution of the work will be undertaken as follows:-

(a) a drilling section for a deep-bore drilling programme.

(b) a constructional section for the building of water tanks and reservoirs and for the construction of additional ballehs.

(c) a section which would concentrate on the improvement of shallow well supplies.

PART II - SCHEMES FINANCED FROM CENTRAL ALLOCATION OF C.D. & W. FUNDS.

A. SCHEMES COMPLETED BEFORE 1ST JANUARY, 1955.

1. Linguistic Research.

R.366 and R.366 A 1940 and 1945 Acts
Grant £2,466.

153. This scheme, approved in 1951, was undertaken on the recommendation of the Colonial Social Science Research Council. Research was undertaken concerning the relationship between the various dialects of the Somali tongue, and a brief study was made of the implications of the present state of Somali as an unwritten vernacular language. The report relating to the phonetic and tonal structure of the language has proved of considerable value in the tuition of Somali and its transcription into European characters.

Net expenditure 1940/45 Acts £2,414.

B. SCHEMES IN PROGRESS ON THE 1ST JANUARY, 1955.

2. Geological Survey.

1940/45 Acts D.1626 and 1626 A and B. Grant	£78,933
1955 Act D.2038 grant (from central allocation only)	58,876
Total:	137,809.

154. The Survey was launched in 1951 and the preliminary geological mapping of the basement rocks of the Protectorate has now been completed with the exception of a relatively small area in the Borama District. In addition, some revision has been undertaken of earlier work particularly in the Berbera District. This field mapping is recorded in some sixteen departmental reports accompanied by maps. Proofs of one colour-printed geological map have been passed. Seven other coloured geological sheets are about to be

published with accompanying explanatory reports. Some revision in the light of recent work may be needed before others are suitable for publication.

155. Economic mineral occurrences which have been discovered or re-examined in the course of mapping during the period under review consist of beryl, cassiterite, columbite/tantalite, galena, gypsum/anhydrite, mica, monazite, samarskite, and talc. Of these, mineral occurrences of cassiterite and gypsum/anhydrite have been specially examined, sampled and reported upon. As a direct outcome of the work of the Geological Survey there has been a small export of beryl and columbite/tantalite, while cassiterite is being actively prospected commercially. Six hundred samples of gypsum/anhydrite have been collected for assay. High grade sands suitable for glass manufacture were recognised and samples analysed in London.

156. Work has also been carried out in relation to water supply problems, and Water Resources Pamphlet No. 1, on a proposed sub-surface dam at Hargeisa, was published in 1955. Close liaison has been maintained with commercial oil companies operating in the Protectorate and advice given both to them and to the Controller of Mines.

157. The professional staff of five was short of one Geologist throughout most of the period. From late in 1955 the Survey was handicapped by the lack of a trained draughtsman, but a clerk with some draughting experience was transferred to the Survey late in 1956. The Headquarters building was extended by the provision of a rock-store and a section-cutting room which were completed in November 1956. The Library continued to expand slowly and the collection of air photographs of the Protectorate was reorganised. Transport was improved towards the end of the period by the purchase of two land rovers.

158. Under the 1955 Act, it was decided that the total approved cost to 1960 of £89,059 should be provided partly by a grant of £58,876 from the Central Allocation of C.D. & W. Funds and partly by a contribution of £30,183 from the territorial allocation of C.D. & W. Funds.

Estimated Total Cost 1951-1960.

1940/45 Acts - Actual expenditure	1951-1956	£70,026	£70,026
1955 Act - Estimated Cost	1956-1960		89,059
Estimated Total Cost	1951-1960		159,085
Actual Expenditure	1956-1957	18,494	
Total expenditure	1951-1957	88,520	88,520
Estimated Expenditure	1957-1960		70,565.

3. New Broadcasting Station (Radio Somali).

1940/45 Acts	D.2143 and D.2143 A & B Grant	£20,830
1955 Act	D.2945 and A Grant(Central provision)	13,105
	Total:	33,935.

159. This scheme was approved in October 1953 to construct and equip a new broadcasting station in Hargeisa. The new studios were brought into use during 1956 and, on the advice of Mr. Roberts the Colonial Office Adviser on whose recommendations the initial plans for the new station had been based, a further grant was approved under the 1955 C.D. & W. Act to provide for the replacement of the existing 1 kw. transmitter, by one of 5 kw. rating, together with acoustic treatment of the studios. All the equipment was installed by an engineer who left in May 1957.

160. A supplementary grant of £1,060 was approved in February 1957 to cover the cost of enlarging the present

transmitter house and for the purchase and installation of a larger transformer and stabiliser to replace the existing unit which would otherwise be seriously overloaded when the new 5 kw. transmitter is brought into operation.

Estimated Total Cost 1953-1960.

1940/45 Acts - Net expenditure 1953-1957	£20,244	£20,244
1955 Act - Estimated Cost 1956 to completion		15,355
Estimated Total Cost 1953 to completion		35,599
Expenditure 1956/57 (D.2945 only)	1,221	
Total Cost 1953-1957	21,465	21,465
Estimated expenditure 1957 to completion:		14,134

C. SCHEMES APPROVED AFTER 1ST JANUARY, 1955.

4. Anthropological Research

1955 Act R. 632 Grant £5,833

161. On the recommendation of the Colonial Social Science Research Council, a grant was approved to enable an up-to-date study of the Somali social structure and tribal organisation to be undertaken. Experience in other territories in Africa where there has been rapid progress during recent years in the economic and political spheres has shown that the information which is made available from such studies has been of considerable use in evolving systems of local government best suited to the needs of the territories.

162. The Anthropologist selected to undertake this study arrived in October 1955. During the first half of 1956 a field study of the social organisation of the Dolbahanta (Darood) in the east of the Protectorate was completed and in the latter part of the year a similar study was commenced among the semi-agricultural Jibril Abokor (Isahak Habr Awal) in the west of the Protectorate. An extension of the general study of Somali custom and particularly of Somali Islam by incorporating comparative data from the southern Somali (Sab) was also undertaken and the opportunity was taken of a visit to the Rahanwein country in Somalia to check the work of the Italian scholar Massimo Colucci (1924). A study was also made of the Gadabursi and Esa tribes. Historical material was also collected in the Erigavo district from which the early Somali extended in their general movement to the south.

163. The Anthropologist left for the United Kingdom in June 1957 where he will spend a period of 9 months writing up his report.

Estimated total cost	£5,833
Actual Expenditure 1955-1957	4,342
Estimated expenditure 1957 to completion of Scheme	1,491.

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PART III - SUMMARY OF EXPENDITURE UNDER PART I

(from inception of schemes to 31st March 1957)

Serial		C. D. and W 1940/45 Acts £.	C. D. and W 1955 Act. £.	Local Revenue Contribution. £.	TOTAL COST. £.
	A. Schemes completed before 1st January, 1955.				
1	Economic Survey D.484	55,349			55,349
2	General Development D.486	163,102			163,102
3	Boramo Primary School D.975	21,174			21,174
4	P.W.D. Workshops etc. D.1034	9,368			9,368
5	Construction of Ballehs D.1338	18,198			18,198
6	Grazing Control D.1386	13,500			13,500
7	Junior Secondary School D.1417	21,394			21,394
8	Erigavo-Mait Road D.1450 and A and B	53,888			53,888
9	Housing, Expatriate Staff, Agricultural Schemes D.1473	18,933			18,933
10	Additional Workshops, Sheikh D. 1513	1,172			1,172
11	Irrigation Survey D.1518	1,501			1,501
12	Care of Destitute Children D.1528	1,583			1,583
13	Mental Hospital D. 1611	9,511			9,511
14	Printing of Report of Geology D.1637	145			145
15	Teaching and Subordinate Staff D.1686	471			471
16	Somali Understudies D.1883	445			445
	Total: Schemes Completed before 1st January, 1955	389,734	-	-	389,734
	B. Schemes in Progress on 1st January, 1955.				
17	Date Cultivation D. 882 and A, D.2806	41,556	6,600	-	48,156
18	Transport Pool, Agricultural Schemes D.1396, D.2809	18,440	2,829	-	21,269
19	Fisheries Development D. 1434 and A, D.2807	17,377	1,610	-	18,987
20	Hides and Skins D.1446 and A, and B.	13,043	4,827	-	17,870
21	Yemeni Farms D.1455	5,065	-	-	5,065
22	Experimental Farms D.1458, D.2818	5,824	1,511	-	7,335
23	Forestry D.1459, D.2860	39,352	22,774	-	62,126
24	Hargeisa Hospital D.1471 and A and B	84,985	-	2,551	87,536
25	Temporary Expatriate Staff, Education D.1512, D.2803	11,529	7,873	-	19,402
26	Trades School D.1549, D.2802	12,820	2,409	-	15,229
27	Girls Boarding School D.1612 and A and B, D.2805	25,959	920	-	26,879
28	Purchase of Tractor for Hire D.1660	2,615	-	-	2,615
29	Agricultural Credit D.1740 and A and B	2,719	1,118	-	3,837
	Carried forward:	281,284	52,471	2,551	336,306

Serial	C.D. and W. 1940/45 Acts £	C.D. and W. 1955 Act £	Local Revenue Contribution £	TOTAL COST £
Brought Forward	281,284	52,471	2,551	336,30
30 Hydrological Survey D.1812 and A and B, D.3061	23,973	6,250	-	30,22
31 Development Officer D.1865, D. 2804	3,383	1,593	-	4,97
32 Juvenile Wing Mandera, D.1888 and A	3,370	-	-	3,370
33 Senior Secondary School D.2021 and A, D.28[illegible]7	16,078	5,486	-	21,56
34 Irrigation and Soil Conservation D.2224(less vi), D.2984	15,701	18,054	-	33,75
35 Purchase of site for Gum Warehouse, Aden D.2235	-	-	-	-
Total: Schemes in Progress on 1st January, 1955.	343,789	83,854	2,551	430,19
C. Schemes approved since 1st January, 1955.				
36 Intermediate Day School D.2552	3,096	3,671	-	6,767
37 Camel Abattoir and Factory D.2801	-	2,584	-	2,584
38 Bonification D.2224(vi) D.2808	4,359	3,011	-	7,370
39 Mobile Cinema D.2819	-	231	-	231
40 Broadcasting Station, Contribution to D.2849	-	-	-	-
41 Training Scholarships and Courses Abroad D.2876 and A and B.	-	6,155	-	6,155
42 Temporary Expatriate Staff, P.W.D. D.2895	-	4,976	-	4,976
43 Intermediate Boarding School D. 2896	-	3,918	-	3,918
44 Range Management Pilot Scheme D.2944	-	2,264	-	2,264
45 Agricultural Education D.2945	-	909	-	909
46 Somali Dictionary D.2970	-	100	-	100
47 Tuberculosis Control D.3108	-	-	-	-
48 Hargeisa Water Supplies D.3121	-	-	-	-
49 Rest House, Ga'an Libah D.3131	-	-	-	-
50 Education D.3142	-	-	-	-
51 Social Welfare Training D.3146	-	-	-	-
52 Berbera Port D.2339, D.3159	-	-	-	-
Total: Schemes approved since 1st January, 1955.	7,455	27,819	-	35,274

	C.D. and W.		Local Revenue Contribution.	TOTAL COST.
	1940/45 Acts £	1955 Act £	£	£
SUMMARY OF TOTALS.				
A. Schemes completed before 1st January, 1955	389,734	-	-	389,734
B. Schemes in progress on 1st January, 1955	343,789	83,854	2,551	430,194
C. Schemes approved after 1st January, 1955	7,455	27,819	-	35,274
GRAND TOTAL PART I	740,978	111,673	2,551	855,202

PART IV - SUMMARY OF EXPENDITURE UNDER PART II (from inception of schemes to 31st March, 1957).

Serial	C.D. and W. 1940/45 Acts £	C.D. and W. 1955 Act £	TOTAL £
A. Schemes completed before 1st January, 1955.			
1 Linguistic Research R.366 and A	2,414	-	2,414
Total: Schemes completed before 1st January 1955.	2,414	-	2,414
B. Schemes in progress on 1st January 1955.			
2 Geological Survey D.1626 and A, D.2858	70,027	18,494	88,521
3 Broadcasting Station D.2143 and A and B, D.2849 and A	20,244	1,221	21,465
Total: Schemes in progress on 1st January 1955.	90,271	19,715	109,986
C. Schemes approved after 1st January 1955.			
4 Anthropological Research R.632	-	4,342	4,342
Total: Schemes approved after 1st January 1955.	-	4,342	4,342

SUMMARY OF TOTALS.

A. Schemes completed before 1st January 1955	2,414	-	2,414
B. Schemes in progress on 1st January 1955	90,271	19,715	109,986
C. Schemes approved after 1st January 1955	-	4,342	4,342
GRAND TOTAL PART II	92,685	24,057	116,742

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